

PREFACE TO CALIFORNIA AMENDMENTS, v0.05

1. The *AASHTO LRFD Bridge Design Specifications* are to be updated with first the '05 and then the '06 AASHTO Interims. Second, all v0.04 CA amendments aka “blue sheets”, should be removed. Finally, v0.05 can be inserted chronologically. **Major** differences between v0.04 and 0.05 include back-to-back formatting and:

Section 3—

- 3.6.1.3.1—clarification that the “low-boy” dual tandem is required
- 3.6.1.8.1—clarification that multiple presence doesn't apply to P15's
- 3.6.2.1—value for P15 *IM* reduced!

Section 4—

- 4.5.3.2.2b—deleted (incorporated into '06 Interims)
- 4.6.2.5—deleted (incorporated into '06 Interims)

Section 5—

- 5.5.4.2—portions deleted (incorporated into '06 Interims)
- 5.7.2.1—deleted (incorporated into '06 Interims); current AASHTO ballot item added as a California Amendment
- 5.7.3.1 and 5.7.3.2—deleted (incorporated into '06 Interims); current AASHTO ballot item added as a California Amendment
- 5.7.3.3—deleted (incorporated into '06 Interims)
- 5.7.3.4—cover requirements for crack control calculations(?)
- 5.8.3.4.2, 5.8.3.5—clarification of girder load distribution factors to be used in shear calculations
- 5.13.4.5.2, 5.13.4.6—deleted (incorporated into '06 Interims)

Section 6—

- 6.9.4.3, 6.10.8, new references—deleted (incorporated into '06 Interims)

Section 9—Traditional deck design draft amendment*

Section 10—draft amendments* added on deep foundations

Section 11—draft amendments* added on abuts, piers, and walls

Section 13 Appendix—draft amendment* added on deck overhang design

*indicated with double-underlines and double strike-throughs'

2. The *Caltrans Standard Specifications* supercedes the *AASHTO LRFD Bridge Construction Specifications*. However, the AASHTO document is recommended to Caltrans staff for reference. A note to Specwriter may be necessary to correct mention of the *AASHTO Standard Specifications* in the *Caltrans Standard Specifications*.
3. The *Caltrans Seismic Design Criteria*, latest version, supercedes provisions for seismic design, analysis, and detailing of bridges contained in the *AASHTO LRFD Bridge Design Specifications*. The AASHTO document shall be adhered to when the California document and/or the Contract Documents are silent.

Preface v0.05, cont.

4. The GP Title Block shall read “Load and Resistance Factor Design”, and “HL93 w/ ‘Low-Boy’ and Permit Design Vehicle”.
5. The General Notes shall be titled “Load and Resistance Factor Design” and list the “*AASHTO LRFD Bridge Design Specifications*, 3rd edition with the **2006** Interims and the Caltrans Amendments v0.05 except for geotechnical design of deep foundations and earth retaining systems”. Caltrans “Bridge Design Specifications (1996 AASHTO with Interims and Revisions by Caltrans)” shall be listed for deep foundations, earth retaining systems, and any other exception approved at Type Selection. **General Notes regarding seismic design remain unchanged.**
6. Deck thickness may not be less than that required per BDD 8-30, dated September 1993
7. For spread footings, the table used to request a final foundation report may resemble that in MTD 4-1, except that the controlling load group should be Service I, Strength I or II, Extreme Event I, etc., per LRFD Table 3.4.1-1. It is DES-OGS’s discretion to use a value of 0.50 for performance factor, or a resistance factor value from Table 10.5.5.2.1-1 (’06 Interims).
8. For piles and shafts, MTD 3-1 may be followed, except that loads and names of load combinations shall come from LRFD. It will be DES-OGS’s discretion to use a value of 0.75 for strength reduction factor, or a resistance factor from Tables 10.5.5.2.2-1, 2 (’06 Interims), when determining tip elevations and other geotechnical requirements.
9. The structural capacity of Caltrans’ Standard Sheets for piles and shafts, hasn’t yet been verified using LRFD Sections 5 and 6. Designers are encouraged to do so, and submit their calculations to the Substructures Committee. That effort may be charged to 910076 6SUBSTRUC 2-003
10. Bearings shall be designed using LRFD loads and Caltrans Std. Specs regarding types allowed and performance required.

1.3.3 Ductility

Delete the 4th paragraph, and revise the 5th paragraph as follows:

~~For the strength limit state:~~

~~$\eta_D \geq 1.05$ for nonductile components and connections~~

~~$= 1.00$ for conventional designs and details complying with these Specifications~~

~~≥ 0.95 for components and connections for which additional ductility enhancing measures have been specified beyond those required by these Specifications~~

For all other limit states, $\eta_D=1.0$.

C1.3.3

Add text after the last paragraph as follows:

A value of 1.0 is being used for η_D until its application is better defined and demonstrated in design examples.

1.3.4 Redundancy

Delete the 4th paragraph, and revise the 5th paragraph as follows:

~~For the strength limit state:~~

~~$\eta_r \geq 1.05$ for important bridges~~

~~$= 1.00$ for typical bridges~~

~~≥ 0.95 for relatively less important bridges.~~

For all other limit states:

$\eta_r = 1.00$

C1.3.4

Add text after the last paragraph as follows:

A value of 1.0 is being used for η_r until its application is better defined and demonstrated in design examples.

1.3.5 Operational Importance

Delete the 3rd paragraph, and revise the 4th paragraph as follows:

~~For the strength limit state:~~

~~$\eta_r \geq 1.05$ for important bridges~~

~~$= 1.00$ for typical bridges~~

~~≥ 0.95 for relatively less important bridges.~~

For all other limit states:

$\eta_r = 1.00$

C1.3.5

Add text after the last paragraph as follows:

A value of 1.0 is being used for η_D until its application is better defined and demonstrated in design examples.

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